

## Student Learning Outcomes

### MACH-2009

#### Five College Learning Outcomes:

- 1. Written, Oral and Visual Communication:** *Communicate effectively in writing, orally and/or visually using traditional and/or modern information resources and supporting technology.*
- 2. Scientific and Quantitative Reasoning:** *Locate, identify, collect, and organize data in order to then analyze, interpret or evaluate it using mathematical skills and/or the scientific method.*
- 3. Critical Thinking:** *Differentiate between facts, influences, opinions, and assumptions to reach reasoned and supportable conclusions.*
- 4. Problem Solving:** *Recognize and identify the components of a problem or issue, look at it from multiple perspectives and investigate ways to resolve it.*
- 5. Information Literacy:** *Formulate strategies to locate, evaluate and apply information from a variety of sources - print and/or electronic.*

#### I. Degrees and Certificates

##### 1. What degrees and certificates does your discipline offer?

We do not offer degrees or certificates but students can apply for a Welding Certification through the local unions or by making an appointment with a Certified Welding Inspector to take the test(s).

##### 2. Keeping in mind the five College Learning Outcomes above as well as what your discipline specifically requires of your graduating students, what should students be able to do when they have completed your discipline's requirements for each degree or certificate?

Students should be able to pass a Welding Certification test.

##### 3. How do students in your program demonstrate that they meet each of the college-wide learning outcomes? What courses, activities, and/or projects are students required to complete that relate to each outcome?

###### i. Written, Oral and Visual Communication

Students must pass a written test as well as oral question and answer sessions during class room instruction. Visually the must be able to identify the various types of welds, welding equipment and welding supplies.

###### ii. Scientific and Quantitative Reasoning

The students are taught the various types of welding gasses and electrical components of the welding equipment and how to recognize and solve any issues regarding these items.

###### iii. Critical Thinking

To understand the critical factors of materials and welding techniques and processes to produce professional results.

###### iv. Problem Solving

Understanding of the physical properties of various metals and welding processes to produce the desired welds.

###### v. Information Literacy

Research into various materials and venders to make informed decisions of the job requirements.

#### II. General Education:

**1. Does your discipline offer any classes which count for general education requirements?**

No

**2. Which General Education courses in your discipline address the each of the five College Learning Outcomes? Please list courses for each of the following:****i. Written, Oral and Visual Communication**

NA

**ii. Scientific and Quantitative Reasoning**

NA

**iii. Critical Thinking**

NA

**iv. Problem Solving**

NA

**v. Information Literacy**

NA

**III. Course Level Outcomes:****1. Do all of your Course Outlines of Record include Student Learning Outcomes? If not, are you revising them?**

Yes

**2. What percentage of faculty members in your discipline include SLOs in their course syllabi?**

100 %

**3. Assessment:****i. How often do you assess these SLOs?**

Every year

**3. Assessment:****ii. In the last two years every discipline developed SLOs specifically related to College Learning Outcome #3: Critical Thinking. Have you assessed this or any of the stated Student Learning Outcomes in your course outlines over the last year? If so, please summarize the results.**

Yes. The results were that the SLO's are appropriate for the current curriculum

**3. Assessment:****iii. What improvements have you made or do you plan to make in the future?**

Continue to review the course and modify the curriculum and SLO's as necessary to provide the students with the best information and guidance in achieveing their goals.

**3. Assessment:****iv. What do you plan to assess this year? Who will you assess? How will you assess?**

We will be assessing the course to identify areas of improvement including budget, materials, testing and student progress. This will be done by staff review and feedback from students at the end of the semester.